

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 32-39 are pending in this application. Claims 32, 33, and 35-39 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. patent 4,241,339 to Ushiyama. Claim 34 was rejected under 35 U.S.C. § 103(a) over Ushiyama as applied to claims 32-39.

Addressing now the above-noted rejections based on Ushiyama, those rejections are traversed by the present response.

Initially, applicants note independent claim 32 is amended by the present response to clarify features recited therein. Specifically, independent claim 32 recites:

a first alignment layer and a second alignment layer, the first and second alignment layers sandwiching said second liquid crystal layer, said first and second alignment layers each including regions displaying a fixed image, with orientations of adjacent of said regions within each of said first and second alignment layers being different.¹

Attached to the present response is an Appendix that was also provided with the previous response to help clarify the distinctions between the claimed invention and the teachings in Ushiyama. As shown for example in the attached Appendix, in the claimed invention alignment layers sandwiching a second liquid crystal each have adjacent regions with different orientations. That is, both the first alignment layer and the second alignment layer individually have adjacent regions with different orientations. Such features are not disclosed in Ushiyama as in Ushiyama each layer has an orientation in the same single direction.

The basis for the outstanding rejection is improper as at first does not even disclose alignment layers sandwiching the second liquid crystal layer.

The outstanding rejection relies upon Ushiyama to disclose in Figures 3 and 4 a first liquid crystal layer 28 and a second liquid crystal layer 27. The outstanding rejection then

¹ The underline portions represent the amended portions.

relies on liquid crystal layer 24 and liquid crystal layers 25/26 to meet the limitations of the claimed “alignment layers”. However, it clearly cannot be possible for such liquid crystal layers 24 and 25/26 in the Ushiyama to meet the limitations of the claimed “alignment layers”.

Independent claim 32 recites “alignment layers *sandwiching* said second liquid crystal layer” (emphasis added). Ushiyama does not disclose the liquid crystal layer 24 (relied on for the claimed “alignment layers”) sandwiching the liquid crystal layer 27 (relied on for the claimed “second liquid crystal layer”); nor is it even possible for Ushiyama to have such a structure. In Ushiyama the liquid crystal layer 24 is part of the noted second liquid crystal 27, and thereby that liquid crystal layer 24 cannot play any role in sandwiching the noted second liquid crystal layer 27.

In such ways, Ushiyama does not even teach or suggest the claimed “first alignment layer” and “second alignment layer”.

Moreover, in claim 32 each of the first and second alignment layers includes plural regions, with orientations of adjacent of the regions of each of the first and second alignment layers being different. In contrast to the claimed features, in the outstanding rejection only the different liquid crystal layers are noted as adjacent and having different regions in Ushiyama. Such liquid crystal layers are not, however, “alignment layers” and do not each have adjacent regions with different orientations, and thus such liquid crystal layers cannot correspond to the claimed “alignment layers.”

In maintaining the outstanding rejection, the Advisory Action of January 14, 2005, states:

[Ushiyama] teaches “alignment layers” are obtained by rubbing the interior surface of plates (substrates) 17 and 18 (col. 5 lines 63-66). There is no rubbing the interior surface of electrodes 20 and 22. Therefore, liquid crystal layer 24 and liquid crystal layer 25/26 are adjacent and have different orientations. However, each liquid crystal layer 24 or 25/26 has

different alignment in adjacent regions (region of rubbing on plates 17 and 18 and region of electrodes 20 and 22 without rubbing; see Attachment).

The above-noted basis for the outstanding rejection appears to misinterpret the teachings in Ushiyama relative to the claimed features. More particularly, Ushiyama states in the device therein liquid crystal molecules 24 adjacent to the interior surface of the glass plate 17 in the first displaced cell 27 are “oriented perpendicularly to the plane of the drawing and those adjacent to glass plate 18 [are] oriented parallel to the plane of the drawing...[t]his orientation may be obtained by rubbing the interior surface of the plate 17 and plate 18 *in a single direction* and positioning the plates with the direction of rubbing at about 90°”.²

From the above-noted passage it is clear that in Ushiyama the glass plate 17 is only rubbed in a first direction and a glass plate 18 is only rubbed in a second direction perpendicular to the first direction. That structure in Ushiyama differs from the claimed features. More particularly, in the claims each individual alignment layer itself has within it different regions with different orientations. That is clearly not the case in Ushiyama. In Ushiyama the glass plate 17 has only a single orientation and the glass plate 18 has only a single orientation. That is also shown for example in the attached Appendix. In contrast to Ushiyama, in the claimed invention each alignment layer has within it regions with different orientations. As shown in the attached Appendix, within the alignment layer orientations differ, which is directly contrary to Ushiyama.

Further, the basis for the outstanding rejection is incorrect in its interpretation of Ushiyama in indicating the areas of no rubbing on the Attachment to the Advisory Action. Ushiyama does not indicate that any portion of the glass plate 17 or 18 is not rubbed. The assumption made in the Office Action is that the areas with the interior electrodes 20 and 22 are not rubbed, but there is no evidence of that, and in fact Ushiyama discloses the opposite.

² Ushiyama at column 5, lines 57-66 (emphasis added).

Ushiyama discloses that the glass plates 17 and 18 are all rubbed and does not indicate any portion of no rubbing within those glass plates 17 and 18. It is unclear how the basis for the outstanding rejection is even assuming such a proposition.

Further, the outstanding Office Action appears to be based on the position that the liquid crystal layers 24 and 25/26 are adjacent and have different orientations. That basis for the outstanding rejection is not at all understood. The claims clearly set forth that ***alignment layers have adjacent regions with different orientations***. The claims do ***not recite*** liquid crystal layers with adjacent regions with different orientations.

In view of the foregoing comments, the claims clearly set forth within each of the first and second alignment layers adjacent regions of different orientations, which clearly differs from any previously presented interpretation of the teachings in Ushiyama.

Thereby, independent claim 32, and claims 33-39 dependent therefrom, are believed to clearly distinguish over the teachings in Ushiyama.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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